

The Ultra-Hi Definition Real Time Zoetrope is a modern re-imagining of an early animation form. The purpose of this project is to improve a system that the user can interact with using a crank. An image of Professor Eric Dyer's artwork is rotated in software, creating the illusion of motion. The project will improve on the existing system, including a video output in 4K resolution instead of the 1080p in previous iterations of this project. Also, the DC motor used for rotational input has been replaced with a smoother and more reliable rotary encoder. Future plans include an improvement to the existing code base, making it cleaner and faster, and adding a more user-friendly interface for setup and operation. A graphical user interface will allow the image to be repositioned and cropped as desired. The team is also considering the capability to adjust hue, saturation, and other variables. The project will meet all capstone requirements and be completed by May 2023. Ideally it could be used as an interactive art installation for the public to enjoy.